

Geometry Quiz 09: Congruence

Similarity and

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Question 1

Two triangles are similar with a ratio of sides 3:4. If the smaller triangle's area is 9 cm^2 , find the area of the larger triangle.

Question 2

If two triangles are congruent, what can you say about their corresponding angles and sides?

Question 3

In similar triangles, the lengths of two corresponding sides are 6 cm and 9 cm. Find the ratio of their perimeters.

Question 4

Two circles are similar. If the radius of one circle is twice the radius of the other, what is the ratio of their circumferences?

Question 5

Two similar polygons have areas in the ratio 16:25. What is the ratio of their corresponding side lengths?

Question 6

Determine if triangles with sides 5 cm, 12 cm, and 13 cm are similar to triangles with sides 10 cm, 24 cm, and 26 cm.

Question 7

In two similar triangles, the ratio of the perimeters is 5:7. Find the ratio of their areas.

Question 8

If two rectangles are similar, and the length and width of the first are 4 cm and 6 cm, respectively, while the length of the second is 8 cm, find the width of the second rectangle.

Question 9

Two similar triangles have side lengths in the ratio 3:5. If the larger triangle has a perimeter of 40 cm, what is the perimeter of the smaller triangle?

Question 10

Determine if two quadrilaterals with corresponding angles equal and side lengths proportional are congruent or similar.